

Work Order ID 73015

Tuesday, August 23, 2011 3:33:41 PM



Page 1

Item ID: D3391-025

Accept



Setup



Revision ID:

Stop



Item Name: Aft Tube Assembly

Start Date: 8/23/2011 Start Qty: 1.00



Required Date: 9/9/2011 Req'd Qty: 1.00



Reference:

Approvals: Process Plan:

Date: 1/08/21 Tooling:

Date:

Run



QC:

Date:

SPC (Y/N):

Date:

Start



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3391

Rev H/ DEO

100



MORI SEIKI CNC LATHE LARGE

Mori Seiki

Mori Seiki CNC Lathe Large

Memo

Turn as per Folio FA599

Rev A P&D Dwg D3391 Rev: H

110



QC2- Inspect parts off machine FAI/FAIB

QC

Quality Control

Memo

0.00

111



QC8- Inspect parts - second check

0.00

QC

Quality Control

Memo

0.00

SCRAP

M.M.L 11/09/06

11. 2. 03

M.M.L 11/09/06

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector	
			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

Work Order ID 73015

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**Revision ID:****Item Name:** Aft Tube Assembly

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**Start Date:** 8/23/2011 **Start Qty:** 1.00**Cust Item ID:****Required Date:** 9/9/2011 **Req'd Qty:** 1.00**Customer:****Reference:****Approvals:** Process Plan:**Date:****Tooling:****Date:**

Run

Start



QC:

Date:**SPC (Y/N):****Date:**

Stop

**Sequence ID/
Work Center ID**

120



HAAS I

**Operation
Description**

HAAS CNC VERTICAL MACHINING #1

Memo**Set Up/
Run Hours**

0.00

Tool ID**Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp**

H.A 11/09/15

1 Ø

HAAS CNC vertical machine #1

1-Machine as per Folio FA 599 Rev: AA & Dwg D3391 Rev: H
2-Deburr

130



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

0.00

H.A

11/09/15

1

Ø

140



QC

Quality Control

QC8- Inspect parts - second check

Memo

0.00

0.00

and 11/09/16

1 Ø

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

150



Skidtubes

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

0.00

11-10-12

Skidtubes

Memo

0.00

1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803

160



CNC Bend 1

CNC Delta 100 Bender

BENDING MACHINE - SKIDTUBES

Memo

0.00

Form as per Dwg D3391 Using Bend Prog 3391025

170



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Cust Item ID:

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Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180



Skidtubes

0.00

Skidtubes

Memo

0.00

Skidtubes

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only.

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217
Wearplate Jig.

*****Do Not Open To Finished Size*****

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2
previously drilled aft wearplate holes.

5-Open wearplate holes to 0.250" and c'bore as per dwg D3391

6-Open up all wearshoe , wearplate to 0.297"and float bag holes to 0.328" as per
Dwg D3391.

7-Deburr

11-11-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Cust Item ID:

Required Date: 9/9/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

190



QC

Quality Control

Operation
Description

QC5- Inspect part completeness to step on W/O

Set Up/
Run Hours

0.00

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp*11-11-030*

200



HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

SD 11-030

210



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

DP 11-11-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Cust Item ID:

Required Date: 9/9/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

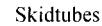
220



Skidtubes

0.00

Skidtubes



Memo

Instal spacers as per dwg D3391
A/R Magnabond 6398 Batch: 117820
exp. date: 12-2-30
cure time 12hrs as per QSI0015

DP/SPD

11-11-3

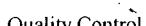
230



QC5- Inspect part completeness to step on W/O

0.00

QC



Memo

0.00

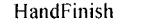
11-11-040

235



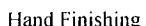
Pressure Wash per QSI005 4.3

0.00



Memo

0.00



AND REALODINE AS PER PAR09-043

11-11-08

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 73015



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Setup

Start



Revision ID:

Item Name: Aft Tube Assembly

Stop



Start Date: 8/23/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 9/9/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240



Powdercoat

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Pho →

Powder Coating

Memo

0.00

START TIME: _____

OVEN TEMPERATURE: _____

FINISH TIME: _____

250



QC3- Inspect Part Finish

0.00

Quality Control

Memo

0.00

260



HandFinishing

0.00

Hand Finishing

Memo

0.00

1-Install inserts as per Dwg D3391

2-Install Aft Cap as per Dwg D3391

A/R Sikaflex-241/-291 _____

Sikaflex expiry date: _____

W/O:		73015	WORK ORDER CHANGES				
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D339K-025 PAR #: Fault Category: *Machin + QC inscrls* NCR: Yes No DQA: *6* Date: 11/11/18
11/11/18 Resolution: *Scrap* Disposition: *Scrap* QA: N/C Closed: *✓* Date: 11/11/18

NCR: 11/11/18		WORK ORDER NON-CONFORMANCE (NCR) 11/11/18						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11/11/18	# 240	Found at this step before P/C that the tube has a large machin from termi on the inside bore. at about	<i>11/11/18</i> <i>11/11/18</i> <i>PS 10/12</i>	<i>SCRAP TUBE 9/11/16</i> <i>Chatter marks are sharp & too deep to buff out. Margin of safety of part are too small to deviate allowable wall thickness.</i>	<i>11/11/16</i>	<i>✓</i> <i>11/11/18</i>	<i>11/11/18</i> <i>PS 10/12</i>	<i>11/11/18</i> <i>PS 10/12</i>
11/11/18	# 202 # 111	Q" from Fwd END R.C. chatter from Boring out ALSO LOA. missed at all inscrly.		<i>Given to Eng for testing</i>	<i>11/11/16</i>			

NOTE: Date & initial all entries

Work Order ID 73015

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Item ID: D3391-025

Accept



Setup

Start



Revision ID:

Item Name: Aft Tube Assembly

Start Date: 8/23/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 9/9/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

270



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

280



Packaging

Packaging

Identify as per dwg & Stock Location: _____

0.00

0.00

Sc/ A P

290



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

0.00

11-11-17
(X)



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Page 1

Tuesday, August 23, 2011 3:33:46 PM

Work Order ID: 73015



Parent Item: D3391-025



Parent Item Name: Aft Tube Assembly

Start Date: 8/23/2011

Required Date: 9/9/2011

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev B 06-02-07 ECN773 dwg rev. D EC
IPP Rev:C 06-03-28 Update Manuf. Instructions JLM 111110
IPP rev D 07.03.20 revF dwg EC
IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD
IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC
IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6014-090		Manufactured	No			100	Each	33.0000	1	1			



ALUMINUM EXTRUSION

Location	Loc Qty	Loc Code
----------	---------	----------

LG	33	
56572	1	
66179	32	

D3670-4-200



SPACER

Manufactured No

Location	Loc Qty	Loc Code
----------	---------	----------

230	152.0000	4

m.m. c 11/08/31

Location	Loc Qty	Loc Code
----------	---------	----------

LG	56	
70822	14	
71850	42	
LG001	96	
72851	96	

(4) SP 11-11-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 73015



Parent Item: D3391-025



Parent Item Name: Aft Tube Assembly

Start Date: 8/23/2011

Required Date: 9/9/2011

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured No

270

Each

96.0000

1

1



Aft Cap

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP004	49	
68280	49	
FP006	5	
62678	5	
FP-4	38	
70945	1	
71070	37	
fp5	4	
71038	4	

D3537-1

Manufactured No

270

Each

17.0000

1

1



Wearpad

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	10	
69530	10	
FP017	7	
69817	5	
70686	2	

D3537-7

Manufactured No

270

Each

0.0000

1

1



Wearpad

D3553-1

Manufactured No

270

Each

4.0000

1

1



Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP013	4	
56568	4	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Parent Item: D3391-025



Parent Item Name: Aft Tube Assembly

Start Date: 8/23/2011

Required Date: 9/9/2011

Start Qty: 1.00

Required Qty: 1.00

D3553-3



Manufactured No

270

Each

28.0000

1

1



Gasket

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	FP	20	
	31631	20	
	FP013	8	
	53480	8	

D3672-1



Manufactured No

270

Each

1,186.000

2

2



Phenolic Washer

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	ST074	1184	
	64177	188	
	66821	496	
	72229	500	
	ST077	2	
	52505	2	

ALS4-1032-130



Purchased No

260

Each

1,559.000

14

14



Insert

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	ST281	370	
	118386	370	
	ST282	1189	
	117717	54	
	118237	879	
	118312	256	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Parent Item Name: Aft Tube Assembly

Start Date: 8/23/2011

Required Date: 9/9/2011

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

270

Each

931.0000

12

12



Insert

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST282	931	_____
-------	-----	-------

110768	62	_____
--------	----	-------

117717	9	_____
--------	---	-------

118386	860	_____
--------	-----	-------

AN3C4A

Purchased

No

270

Each

2,261.000

6

6



BOLT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST350	2261	_____
-------	------	-------

117313	2	_____
--------	---	-------

117688	36	_____
--------	----	-------

117795	1	_____
--------	---	-------

117872	22	_____
--------	----	-------

118012	20	_____
--------	----	-------

118112	40	_____
--------	----	-------

118451	1000	_____
--------	------	-------

118628	1140	_____
--------	------	-------

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	73015
Description: Float Skidtube (412)		Part Number:	D3391-3
Inspection Dwg: D3391	Rev: H		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.000	✓		tape	mm. L-02
3.500	+/-0.010	3.500	✓		vern	CNC-08
88.93	+/-0.030	88.93	✓		tape	mm. L-02
Ø3.200	+/-0.010	3.202	✓		mic	CNC-05
88.93	+/-0.030	88.93	✓		tape	mm. L-02
Ø3.750	+/-0.010	3.750	✓		vern	CNC-08
30° x 160° chamfer	+/-0.010	30° x 160	✓		“	

Measured by:	MM. L	Date:	11/09/15
Audited by:	RR	Date:	11-9-15

HAAS Section						
1.526	+0.000/-0.030	1.510	✓		Vern	GA-01
7.500	+/-0.010	7.501	✓		Vern	CNC-02
27.750	+/-0.010	27.750	✓		TAPE	GA-12
31.750	+/-0.010	31.750	✓		“	“
35.250	+/-0.010	35.250	✓		“	“
3.300	+/-0.010	3.295	✓		Vern	CNC-02
0.200	+/-0.010	0.201	✓		Vern	GA-01
3.520	+/-0.010	3.515	✓		Mic	GA-10
0.687	+0.010/-0.000	0.690	✓		Vern	GA-01
R0.062	+/-0.010	R0.062	✓		R-G	ref.
Ø0.484	+0.005/-0.001	Ø0.488	✓		Vern	GA-01

Measured by:	B.A	Date:	11/09/15
Audited by:	RR	Date:	11/09/15

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	<i>JG</i>

W/O:

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	Initial Chief Eng	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

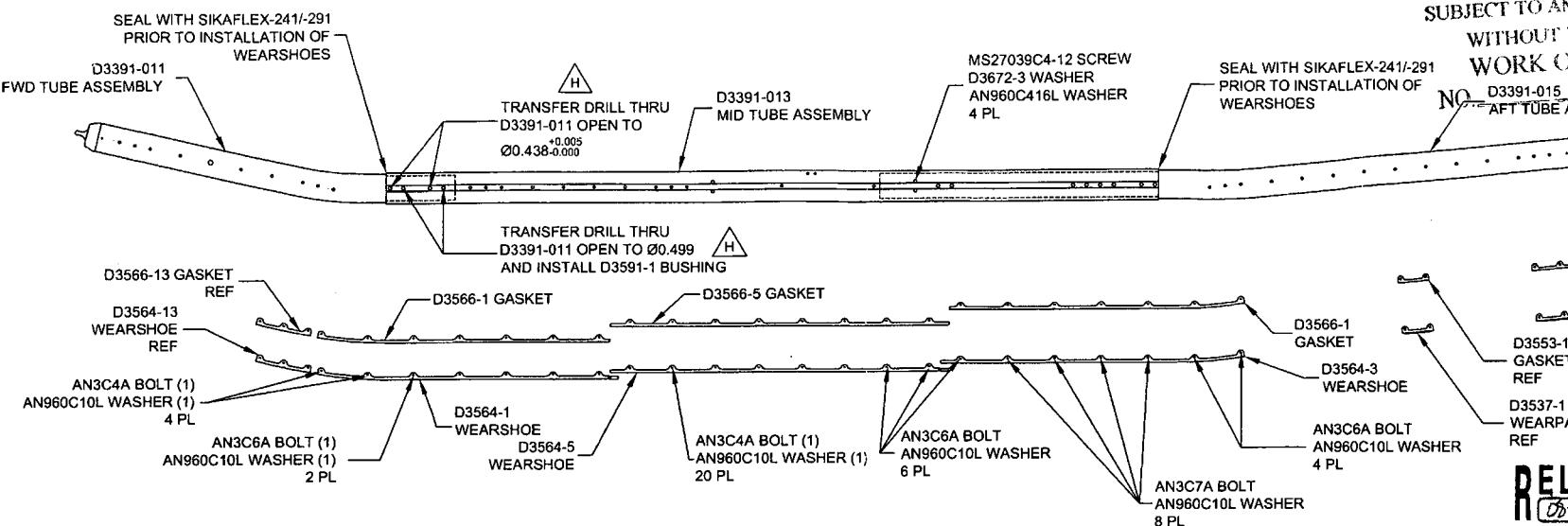
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A.	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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WITHOUT NOTICE
WORK ORDER

2305
211-08-24



D3391-041 ASSEMBLY

D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
.041	X D3391-041	FLOAT SKIDTUBE ASSEMBLY
1	D3391-011	FWD TUBE ASSEMBLY
1	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
1	D3566-1	GASKET
2	D3566-5	GASKET
2	D3564-1	BUSHING
4	D3572-3	WASHER
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER
4	MS27039C4-12	SCREW
4	AN960C416L	WASHER

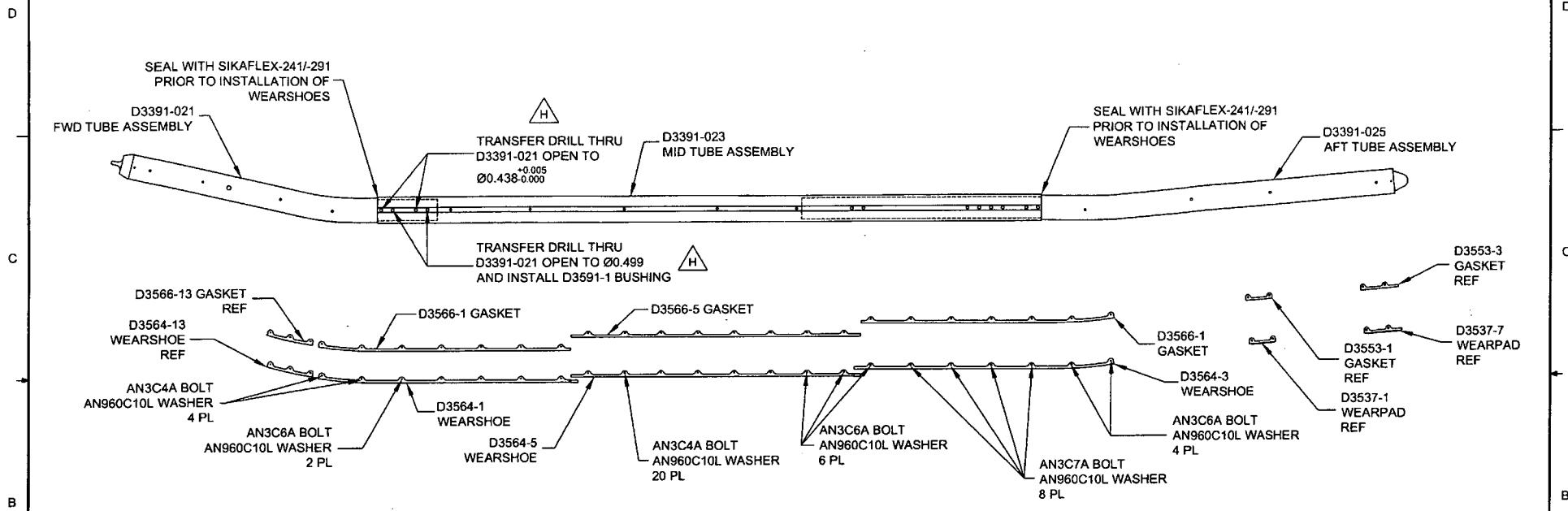
GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH
AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH
LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS
OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø.297 SIZE HOLES
FOR WEARSHOE INSERTS. CBORE AS NOTED AND INSTALL INSERTS EXCEPT
WHERE INDICATED.

H	DRAWING UPDATED TO CURRENT STANDARDS. SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL ADDED Ø0.499 DIM AND D3591-1 BUSHING. SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL ADDED Ø0.499 DIM AND D3591-1 BUSHING. (FOR FURTHER INFO SEE DS1 9364 & NCR 08-074)	AJS	08.08.20
G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS. DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011-021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 1 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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8 7 6 5 4 3 2 1

D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
X	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
2	D3591-1	BUSHING
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER

GENERAL NOTES

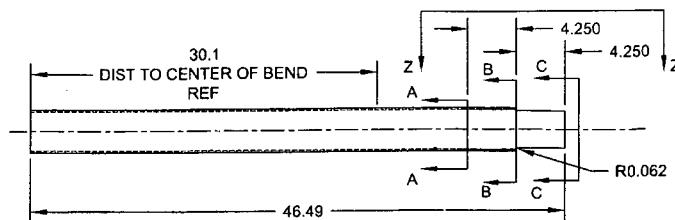
- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
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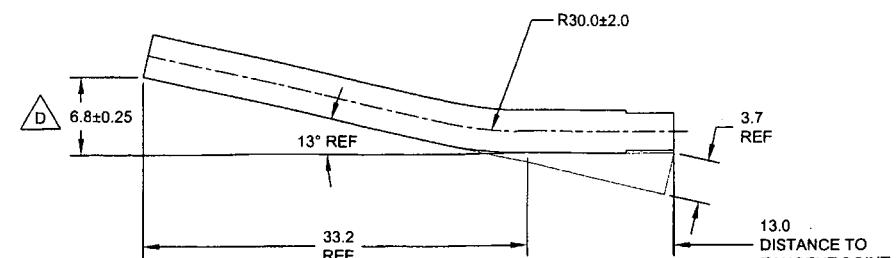
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DRAWN	AUS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 2 OF 8
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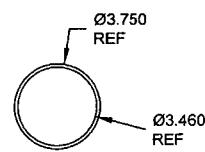
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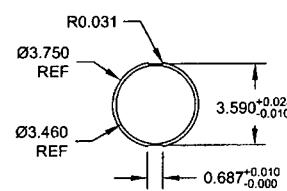
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



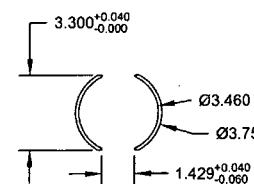
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



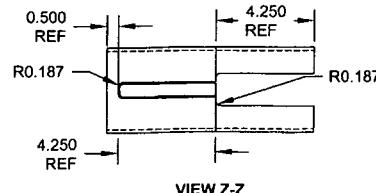
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SECTION B-B
SCALE 2X



SECTION C-C
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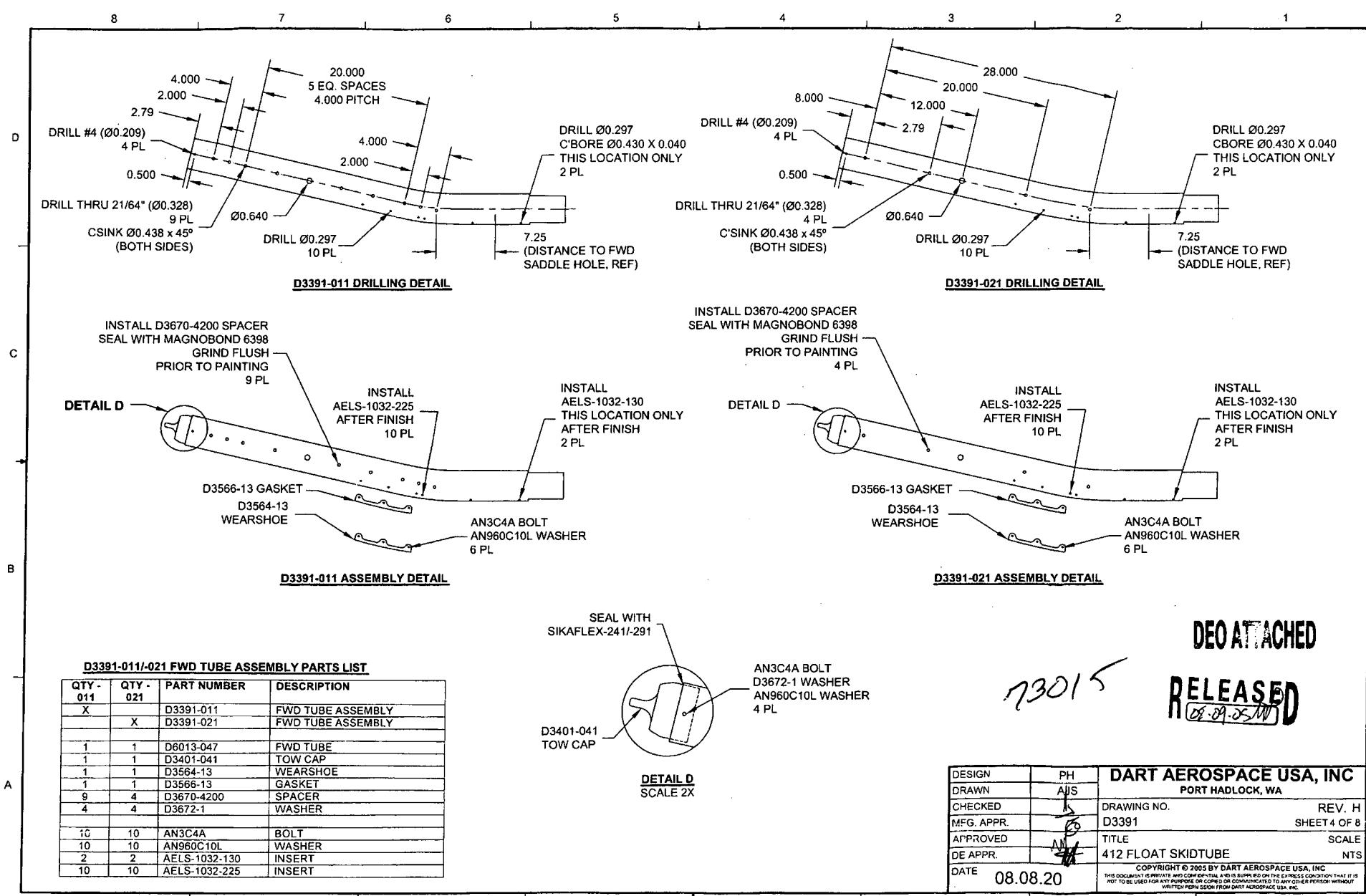


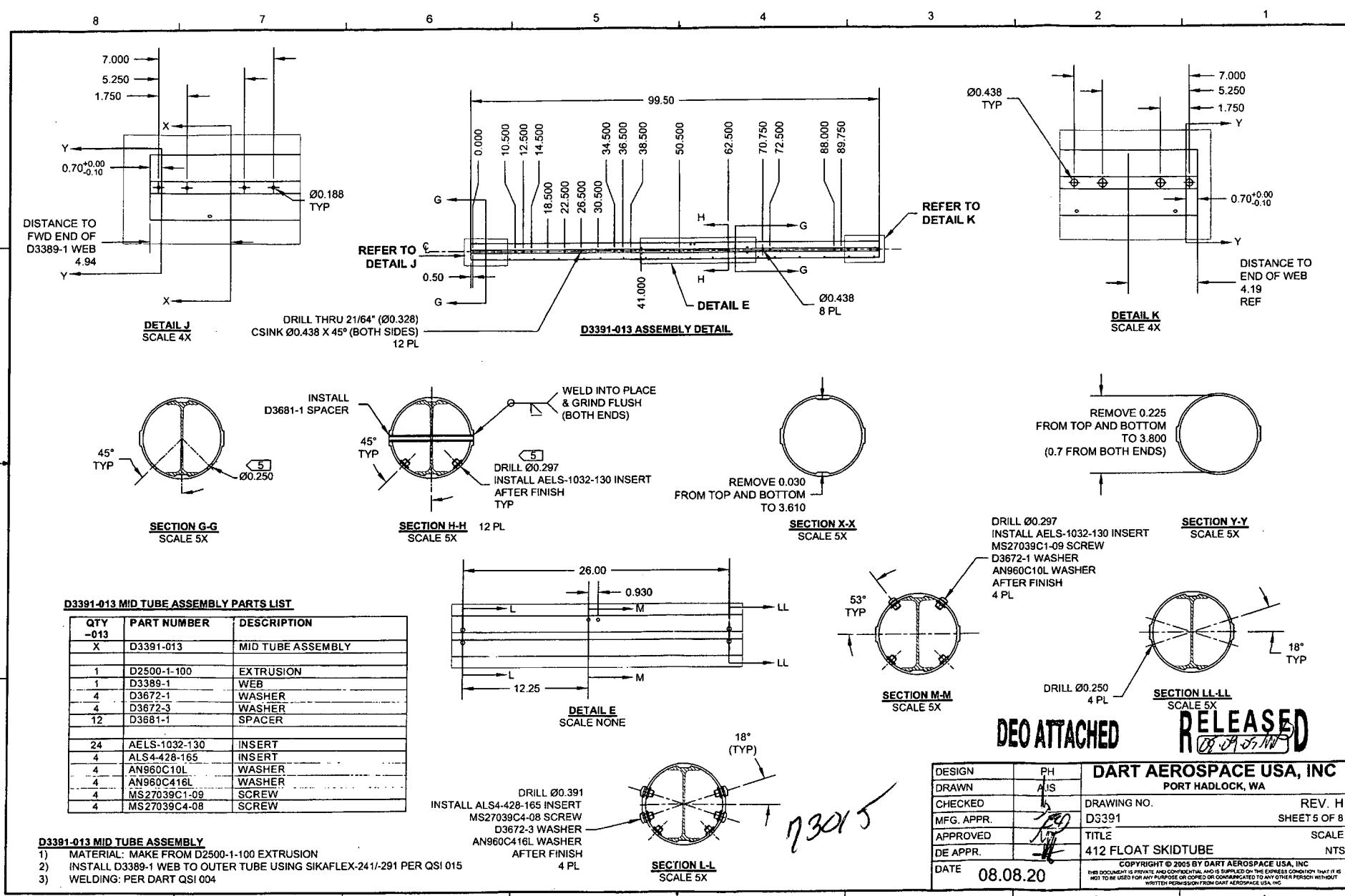
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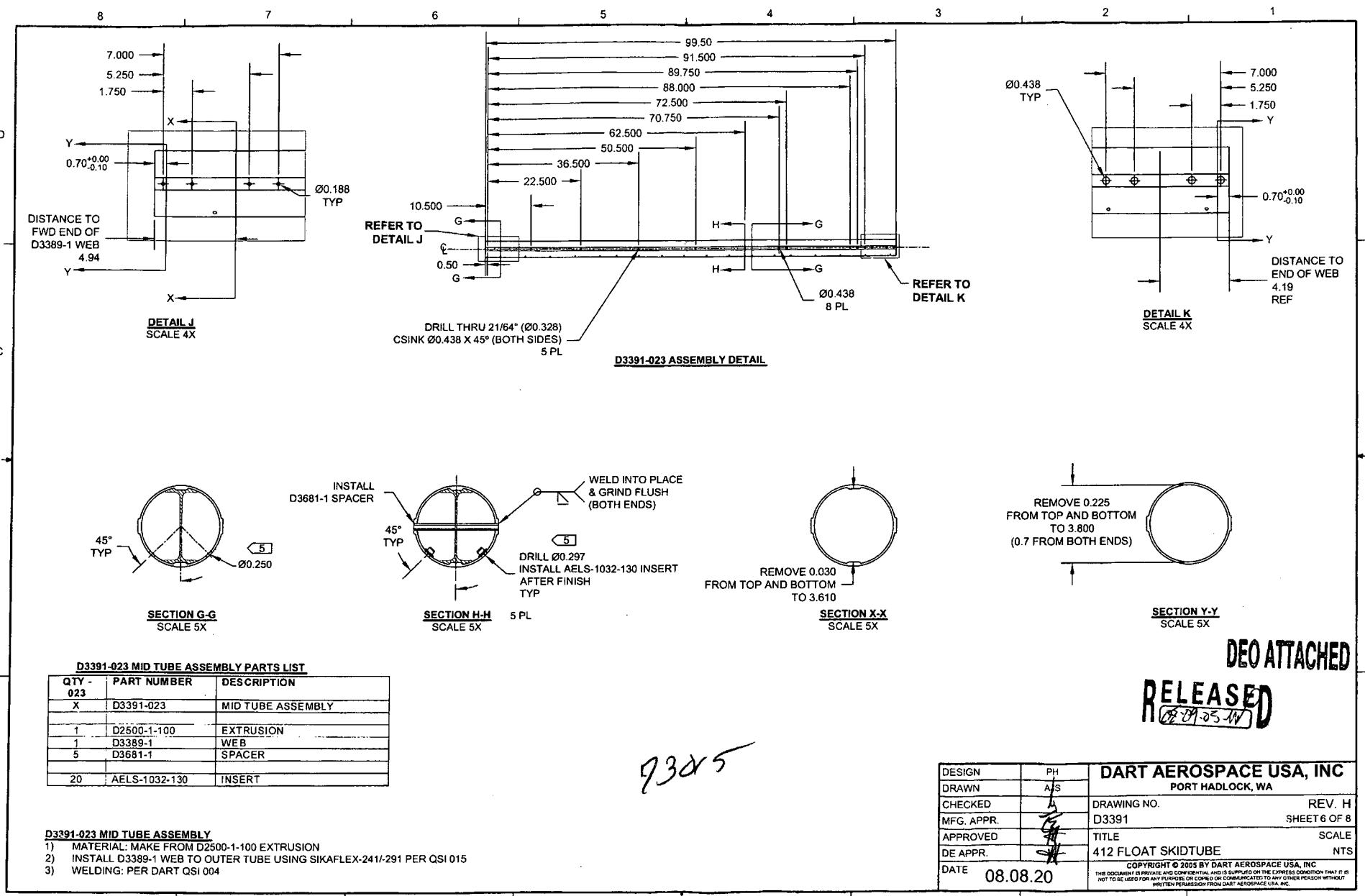
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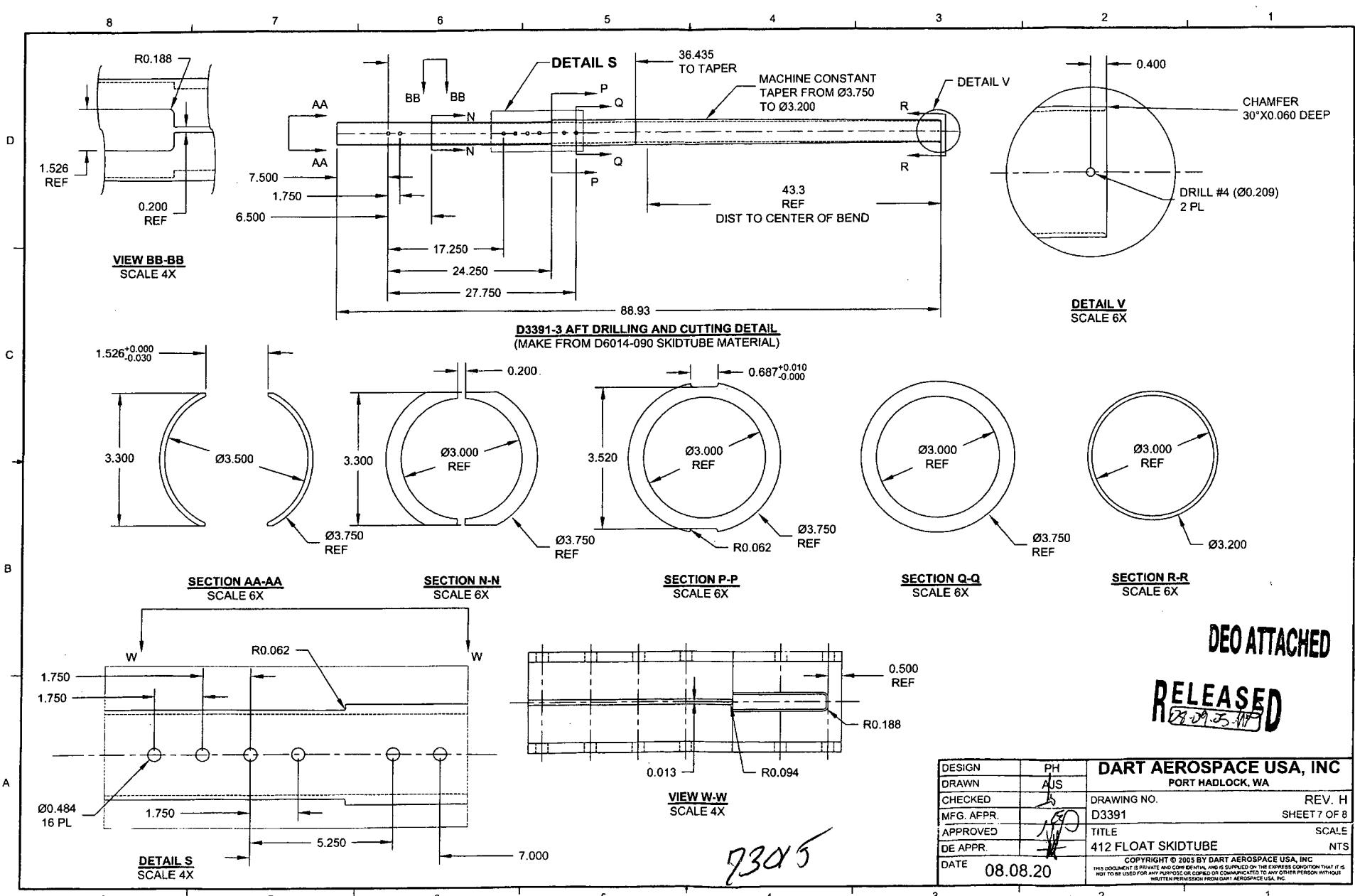
DART AEROSPACE USA, INC	
PORT HADLOCK, WA	
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D3391	SHEET 5 OF 8
TITLE	SCALE
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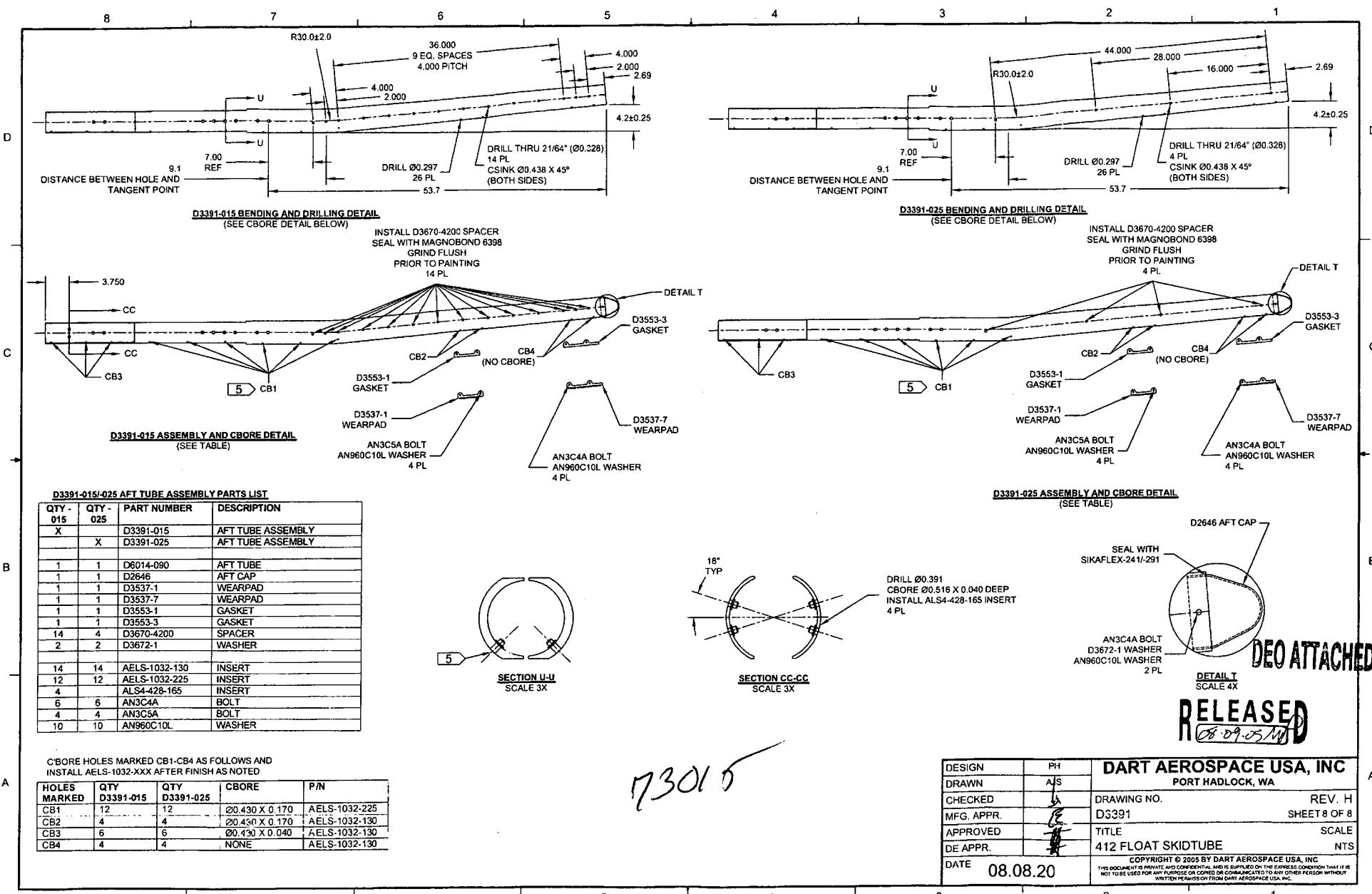




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MFG. APPR.		D3391	SHEET 7 OF 8
APPROVED		TITLE	SCALE
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DRAWING NO. D3391	TITLE 412 FLOAT SKIDTUBE	REV. H	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3391-H-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>(P)</i>	CHECKED <i>AA</i>	MFG. APPR. <i>AA</i>	APPROVED <i>MP</i>	DE APPR. <i>MP</i>		
DATE 09.09.23	DATE 09.09.24	DATE 09/09/25	DATE 09/09/30	DATE 09/09/30	DATE 09/09/30	

PURPOSE:

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF D3391-041-043 SKIDTUBES.

CHANGE:

AMEND NOTE 2 OF D3391-041-043 SKIDTUBE ASSEMBLIES (ZN A6-1, A6-2) AS FOLLOWS:

2) ~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.~~ COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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93015